

Georgia State University

ScholarWorks @ Georgia State University

GHPC Articles

Georgia Health Policy Center

4-23-2015

Building a pathway to student success at Georgia State University

Martin Kurzweil

D.Derek Wu

Follow this and additional works at: https://scholarworks.gsu.edu/ghpc_articles

Recommended Citation

Kurzweil, Martin and Wu, D.Derek, "Building a pathway to student success at Georgia State University" (2015). *GHPC Articles*. 142.

https://scholarworks.gsu.edu/ghpc_articles/142

This Article is brought to you for free and open access by the Georgia Health Policy Center at ScholarWorks @ Georgia State University. It has been accepted for inclusion in GHPC Articles by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact scholarworks@gsu.edu.

CASE STUDY

Building a Pathway to Student Success at Georgia State University

April 23, 2015

*Martin Kurzweil
D. Derek Wu*





Ithaka S+R is a strategic consulting and research service provided by ITHAKA, a not-for-profit organization dedicated to helping the academic community use digital technologies to preserve the scholarly record and to advance research and teaching in sustainable ways. Ithaka S+R focuses on the transformation of scholarship and teaching in an online environment, with the goal of identifying the critical issues facing our community and acting as a catalyst for change. JSTOR, a research and learning platform, and Portico, a digital preservation service, are also part of ITHAKA.

Copyright 2015 ITHAKA. This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License. To view a copy of the license, please see <http://creativecommons.org/licenses/by-nc/4.0/>.

ITHAKA is interested in disseminating this work as widely as possible. Please contact us with any questions about using the case study: research@ithaka.org.

Introduction

Georgia State University (GSU), a public university in Atlanta with nearly 33,000 undergraduates, has dramatically improved its rates of student success over the past decade. GSU's six-year graduation rate has increased from 32 percent in 2003 to 54 percent in 2014.¹ During the same period, GSU has made a concerted effort to increase enrollment for traditionally underserved students. Remarkably, the share of its students who are Pell eligible nearly doubled, from 31 percent in 2003 to 58 percent in 2013.

GSU's success with traditionally underserved students has received broad recognition. National media outlets have touted the innovative programs undertaken at GSU,² and President Obama praised GSU during the 2014 White House College Opportunity Summit.³ GSU is a core member of the University Innovation Alliance, and now hosts approximately 80 visits each year from representatives of other colleges and universities seeking to understand how GSU has achieved its success.⁴ To research this case study, we visited GSU's downtown Atlanta campus in March 2015, spending two days meeting with 17 administrators and staff members.⁵

Commentators and those seeking to learn from GSU have tended to concentrate on specific programs. Recently, much of that attention has focused on GSU's innovative GPS advising system, a collaboration with EAB (formerly the Education Advisory Board) to mine GSU's data and generate real-time alerts for students at risk of falling off track academically. Although it is an impressive tool, GPS was introduced in 2012, nearly a decade after GSU's rapid improvement in student outcomes began.

¹ Unless otherwise noted, all of the statistics in this case study were derived from internal GSU documents.

² See, for example: Korn, Melissa, "Colleges Clamp Down on Bloated Student Schedules." *The Wall Street Journal*, December 5, 2014. <http://www.wsj.com/articles/colleges-clamp-down-on-bloated-student-schedules-1417823336>. Blumenstyk, Goldie, "Blowing Off Class? We Know." *The New York Times*, December 2, 2014. http://www.nytimes.com/2014/12/03/opinion/blowing-off-class-we-know.html?_r=0.

³ The White House, "The President and First Lady's Call to Action on College Opportunity." Press Statement, December 4, 2014. <https://www.whitehouse.gov/the-press-office/2014/12/04/president-and-first-lady-s-call-action-college-opportunity>.

⁴ See University Innovation Alliance, "Collaborative Project Goal: Predictive Analytics." <https://olis.leg.state.or.us/liz/2015R1/Downloads/CommitteeMeetingDocument/42977>.

⁵ We are grateful to President Mark Becker for welcoming us to campus, and to Vice Provost Tim Renick for coordinating our visit and sharing his sharp insights about the student success work. The full list of interview subjects, who were generous with their time and extremely thoughtful about their work, can be found in Appendix A.

No single initiative is responsible for the dramatic gains at GSU; the university's improvement represents the accumulated impact of a dozen or more relatively modest programs.

Indeed, no single initiative is responsible for the dramatic gains at GSU; the university's improvement represents the accumulated impact of a dozen or more relatively modest programs. As it turns out, the recipe for GSU's success is not a particular solution, but rather a particular approach to problem-solving.

GSU has been uniquely effective in using its student-data warehouse to identify soluble barriers to student progression and graduation, and attacking them systematically. The administration has created an organizational structure to facilitate this process, combining several critical functions (financial aid, academic support and advising, student accounts, admissions, and the registrar) under one vice provost. This structure—along with the full backing of both senior administrators and the university senate—has nurtured the development of a deliberate cycle of piloting innovative responses to identified barriers, testing their efficacy, and rapidly scaling them up if there is evidence of effectiveness. Repeated, successful implementation of this problem-solving process to address the “low-hanging fruit” has both yielded impressive aggregate improvement in GSU student outcomes and given GSU's administration and faculty the confidence to tackle bigger and less tractable problems.

Origins and Operations of GSU's Student Success Initiatives

GSU has traditionally attracted large numbers of students with limited means and whose other priorities, such as work and family, compete with paying for college. For years, it graduated less than a third of its students; underrepresented minorities and other traditionally underserved students had even lower rates of success. In the late 1990s, GSU's administration—led by then-provost Ron Henry—became involved in a number of cross-institutional consortia focused on new strategies to address persistently low completion rates.

In embarking on this work, one of GSU's strengths was that it had been a good steward of its student data for many years. A massive effort by the Office of Institutional Research to cleanse and warehouse these data made this trove of information usable.

Through analysis of the data, the university was able to split the very large problem of low student success rates into smaller pieces. One of the first areas of focus—in response to evidence that students who fail to graduate often fall off track in their freshmen and sophomore years—was targeting students with academic and social enrichment early in their college careers.

Table 1. Selected GSU Student Success Initiatives

Initiative	Year Started	Summary	Scale
Freshman Learning Communities	1999	First-year students sorted into cohorts of 25 based on meta-major; take all courses together in block schedule.	95% of first-year students in 2013-14
Supplemental Instruction	2005	Students who are most successful in courses hired as peer tutors for other students in the course; many tutors eligible for work-study.	9,700 students in 2013-14
Mathematics Interactive Learning Environment	2006	Redesign of introductory math courses (algebra, statistics, and pre-calculus) using a hybrid, emporium model of face-to-face and machine-guided instruction.	7,500 students in 2013-14
Keep HOPE Alive Scholarship	2008	Small grants to students who lose eligibility for Georgia's HOPE merit scholarship, combined with academic and financial counseling.	377 students since 2009
Panther Retention Grants	2011	Small grants (combined with academic and financial counseling) to juniors and seniors who are on-track academically, but are required by a state of Georgia rule to be dropped from classes because they have small outstanding balances on tuition or fees.	4,200 students since 2011
Graduation and Progression System	2012	Sophisticated dashboard for advisers that displays real-time analyses of student academic progress and raises alerts calling for intervention; coupled with consolidating undergraduate advising and more than doubling the number of advisers.	Prompted 43,000 student-adviser meetings in 2013-14
Summer Success Academy	2012	Opportunity for the most academically at-risk 10 percent of incoming freshmen to take 7 credit hours and receive intensive academic advisement and financial literacy training during the summer before their first year.	320 students in Summer 2014

In line with this focus, the first initiative implemented during this period was Freshman Learning Communities (FLCs).⁶ Introduced in 1999 and expanded in 2003, FLCs are groups of twenty-five incoming freshmen at GSU who take all of their first-year classes together. The courses are offered in a block schedule, meaning that the students take all classes during a concentrated time period on particular days (for example, between 9 AM and 1 PM on Mondays and Wednesdays). Starting in 2012, students have been assigned to an FLC based on their choice of “meta-major”: a broad field such as STEM, business, humanities, or health sciences encompassing related disciplines. All of the credits earned through the FLC courses count toward any major within the meta-major.⁷ Furthermore, FLCs offer intensive, targeted advising, from both advisers and department faculty, to guide students toward programs suited to their abilities. In addition to the academic benefits of this approach, several of our interviewees mentioned that block scheduling has been more conducive to the schedules of working students and has thus improved attendance. At the same time, the whole package has reduced administrative burdens by allowing the registrar and advisers to deal with students and courses in groups.

After data analysis revealed certain GSU courses with high DFW (drop/fail/withdraw) rates, GSU launched another targeted academic support program, Supplemental Instruction, in 2005.⁸ Supplemental Instruction is a large-scale, peer-tutoring program in which undergraduates who excel in these traditionally difficult courses are trained to lead study sessions for students currently in the course. Many of the student tutors are eligible for work-study, which makes the program cost-effective: the students who qualify are assigned to be tutors as their campus job rather than a role in, say, the library or the admissions office.

The comparative DFW rate analysis revealed that lower-level math courses were a particularly high barrier to progression for many students; 43 percent of the students each year who took college algebra, pre-calculus, and statistics did not successfully complete their course.⁹ With such a low rate of success in courses that are required for students to graduate, the provost’s office determined that the problem could not be

⁶ For more information on Freshman Learning Communities: <http://success.students.gsu.edu/first-year-programs/freshman-learning-communities/>.

⁷ An example of such a schedule may consist of classes offered back-to-back from 8:30 am to 1:30 pm on Mondays and Wednesdays only.

⁸ For more information on Supplemental Instruction: <http://success.students.gsu.edu/success-programs/supplemental-instruction/>.

⁹ See “Georgia State University,” Complete College Georgia Plan. http://www.completegeorgia.org/Campus_Plans/2014/plans/Georgia_State.pdf.

addressed around the edges, but instead required a fundamental change to the courses themselves. Consequently, in 2006, the provost's office began working with the math department to pilot various hybrid models for the course. The most successful of these pilots was an emporium model that includes one hour of lecture and three hours of adaptive, machine-guided instruction on Pearson's MyMathLab platform.¹⁰ The latter takes place in physical computer labs on campus, where instructors are present to answer students' questions in real time and assist them with assignments. This model, which GSU named Mathematics Interactive Learning Environments (MILE), was implemented for all 7,500 seats in the three introductory math courses. In 2014, the DFW rate for the three MILE courses declined to 19 percent—still high, but less than half the rate before the change.

Unlike prior (and subsequent) GSU initiatives, the MILE program directly affected how faculty taught courses; they no longer had the autonomy to teach these courses how they wanted. This generated pushback from some math faculty, including the department chair. But a combination of a new department chair and the strong positive results associated with MILE have led the math faculty today to embrace and advance the MILE program. In the words of one of our interview subjects, the initiative has “produced better results without lowering standards or materially changing content.”

In 2008, Tim Renick—chair of the religion department and head of the university senate's academic affairs committee—was appointed Associate Vice Provost for Enrollment Services, overseeing the offices of admissions, the registrar, and undergraduate advising. Over the next two years, Renick added to his portfolio financial aid, student accounts, a newly created office focused on student success, and a dotted line relationship with the Office of Institutional Research. In 2009, Mark Becker was appointed president of GSU; he soon became a strong advocate for data analytics to support student success. With a combination of cross-cutting functional responsibilities and Becker's backing, Renick was able to accelerate the process of leveraging data analysis to develop strategic responses across a variety of domains.

One of the first programs created under this new structure was the Keep HOPE Alive scholarship (established in 2008). Georgia's merit-based HOPE scholarship, which covers tuition at Georgia institutions, requires recipients to maintain a 3.0 cumulative GPA. GSU's analysis revealed that many of the students who lost the HOPE scholarship maintained GPAs just below the 3.0 threshold, yet only 9 percent of those who lost the scholarship ever gained it back. Furthermore, students who lost the HOPE scholarship were very unlikely to graduate on time or at all. The Keep HOPE Alive program provides

¹⁰ For more information on MILE: <http://www3cas.gsu.edu/~themile/>.

freshmen and sophomores who lost their HOPE scholarship but maintain a GPA of at least 2.75 a \$1,000 scholarship, contingent on their completing various tasks ranging from attending financial counseling and academic skills workshops to participating in mandatory advisement sessions.¹¹

In addition to financial challenges, the new student success team also began to focus attention on departmental policies and student academic choices that became “progression bottlenecks.” One notable example is the popular nursing major. To progress to upper-level nursing courses, a student who declared as a nursing major was required to have a minimum overall GPA and a minimum GPA in prerequisite classes taken during his or her first two years. However, there were far more interested students than seats in the nursing program (primarily because of limited clinical positions in local hospitals), which gave priority to students with higher GPAs. Therefore, the minimum GPA to continue in the major was functionally higher than the “official” minimum. Furthermore, students who had declared for nursing but did not achieve the minimum GPA requirement in the prerequisites would continuously retake those courses in an effort to raise their GPA, sometimes for several years. As a result of all this, only 29 percent of students who declared a nursing major graduated from GSU, compared to an institutional average of 50 percent (at the time) for all majors.

Based on these findings, the student success team worked with the nursing program to make a number of changes. First, they raised the official overall minimum GPA to a level that reflected the actual cutoff for continuation in the major. Second, with analytical support from the Office of Institutional Research, they identified the prerequisites that were most strongly correlated with success in the major (such as mathematics) and limited the prerequisite minimum GPA requirement to those courses. They further required that those courses be completed in a student’s first year, and only permitted them to be retaken once. Together, these changes meant that a student would know with a high level of certainty after one year whether he or she could continue in the nursing major. The advising center would then steer students who had declared a nursing major but were unable to continue to other majors toward which their first year credits would count. In several instances, the Office of the Vice Provost worked with academic departments to create new interdisciplinary majors, such as health informatics, that combined nursing prerequisites and other skills into a marketable package.

¹¹ For more information on Keep Hope Alive: <http://success.students.gsu.edu/success-programs/keep-hope-alive/>.

The student success team...opportunistically pursued small pilot programs that later blossomed into significant interventions.

In addition to identifying and tackling problems like the nursing requirements, the student success team sometimes opportunistically pursued small pilot programs that later blossomed into significant interventions. When President Becker and his wife donated \$40,000 to student success efforts, the team decided to use it to test a solution to a long-running student accounts challenge. As a result of a state of Georgia rule mandating that students pay 100 percent of their tuition and fees in the first week of classes or be dropped, GSU found that more than 1,000 students each semester who were on track to graduate were nevertheless dropped, some of them owing only relatively small amounts of money. The student success team used the President's donation to fund small grants (averaging about \$900) to juniors and seniors on track to graduate who had the smallest outstanding balances. In return, the students agreed to participate in academic support programs and financial counseling—conditions similar to those attached to the Keep HOPE Alive grants. A high proportion of grant recipients in the pilot remained enrolled and made progress, and the team decided to scale up the program. The Panther Retention Grants, launched in 2011, became a key tool to keep students who would otherwise lose a semester or more enrolled and on the path to graduation. Since their inception, the budget for the grants has increased from the initial \$40,000 donation to over \$2 million, with one percent of student fees now specifically set aside to partly fund these grants. And yet, the program generates net revenue, with several interviewees noting that by making a small grant to a student, GSU is able to retain the rest of his or her tuition and fee revenue that would otherwise be lost.

In 2011, GSU also established a new five-year strategic plan, the first goal of which was to “become a national model for undergraduate education by demonstrating that students from all backgrounds can achieve academic and career success at high rates.”¹² While the establishment of this strategic plan did not change the iterative, data-focused process by which GSU identified and tackled barriers to student success, it formalized GSU's focus on student success as the university's foremost goal and led to a significant investment in accelerating the work. Moreover, GSU publicly committed to a set of ambitious (but,

¹² See p. 4 of GSU's 2011-2016 Strategic Plan: http://strategic.gsu.edu/files/2012/09/GSU_Strategic_Plan_2016-2.pdf.

according to our interviewees, realistic) goals to be attained by 2020, including “improving institutional graduation rates by 12 [percentage] points” for all students and “increasing by 30 percent the number of students enrolled from key underrepresented groups.”¹³

The key initiative stemming from the 2011 strategic plan was a complete restructuring of the undergraduate advising function. Previously, the individual colleges and schools within GSU were responsible for advising undergraduate students after their freshman year. Under the new advising structure, a centralized advisement center takes responsibility for students in their first three years, with individual colleges and schools responsible only for their seniors. To accommodate this change, GSU hired 42 new advisers—more than doubling the staff and reducing the student-to-advisor from 1500 students per adviser to 300 students per adviser. To signify the importance of advising and student success to GSU’s mission—and to make advisers more accessible—a new advisement center was created on two floors of one of GSU’s most prominent and centrally located administrative buildings.

In addition, GSU became an early member of EAB’s Student Success Collaborative. Building upon the predictive analytics work already carried out by its Office of Institutional Research, GSU and EAB created the Graduation and Progression System (GPS), a sophisticated dashboard based on more than ten years’ worth of academic data that displays real-time analyses of academic progress and the implications of certain decisions for each student.¹⁴ GPS also contains an inventory of more than 800 alerts—signaling everything from registering for a class that does not count towards a designated major to receiving a low grade in a prerequisite class for that major—that prompt advisers to contact students. As many interviewees noted, GPS has made the advising process “proactive rather than reactive,” allowing advisers to identify potential obstacles to success and intervening before they become acute. It has also enabled advisers to tailor their guidance personally to each student based on concrete evidence, rather than opinion.¹⁵ GPS has also provided the advisement center and the student success team with tools to identify systemic barriers to success and address those barriers through changes in policy.

¹³ See “College Completion Plan 2012: A University-wide Plan for Student Success, The Implementation of Goal 1 of the GSU Strategic Plan.” http://enrollment.gsu.edu/wp-content/blogs.dir/57/files/2013/09/GSU_College_Completion_Plan_09-06-12.pdf.

¹⁴ For more information on GPS Advising: <http://oie.gsu.edu/files/2014/04/Advisement-GPS.pdf>.

¹⁵ One interviewee told us that, under the old advising system, students seen by advisors would often be those at the highest and lowest ends of the academic spectrum. In fact, students in the “murky middle” would often be completely missed by advisors.

In response to feedback from advisers and new sources of information, the GPS system has been upgraded since its initial launch. The latest change is the incorporation of extensive information on career options tied to each major, based on data obtained from Burning Glass, a company that crawls online job listings to aggregate and analyze such information. Up to this point, the information from GPS has only been available to students through their advisers, but GSU is working on a mobile app that will put some of the information—the career pathways data, in particular—literally in students' hands.

Another initiative based on new predictive data is the Summer Success Academy. The Academy offers an opportunity for the most academically at-risk 10 percent of incoming freshmen to take 7 credit hours and receive intensive academic advisement and financial literacy training during the summer before their first year.¹⁶ GSU allows attendees to apply financial aid awards including Pell Grants towards the Academy's tuition and fees by having them complete a FAFSA for the prior year, in addition to the FAFSA they complete for the upcoming academic year.

GSU continues to apply its data-based, problem-solving approach to additional areas. The student success team is working on further strengthening the connection between advising, programming, and career options. It is seeking to develop predictive analytics to support course planning, as newly sophisticated student advising has revealed weaknesses in matching student needs to available courses. The next frontier, according to a number of our interviewees, is developing GPS-like systems and support structures for financial counseling, as well as for graduate students.

Evidence of Impact

In keeping with its data-driven approach, GSU has closely tracked the outcomes associated with its initiatives. Although there has not been a rigorous, controlled study of their effects, there are strong indications of remarkable impacts for both individual programs and the full constellation of changes.

At a broad level, as noted above, the advent of GSU's student success initiatives has coincided with a dramatic increase in its six-year graduation rate, from 32 percent in 2003 to 54 percent in 2014. GSU has also fulfilled its commitment to enroll more traditionally underserved students. In particular, the percentage of students receiving Pell Grants has almost doubled since 2003, the percentage of non-white students has

¹⁶ For more information on the Summer Success Academy: <http://success.students.gsu.edu/first-year-programs/success-academy/>.

increased from 40 percent ten years ago to more than 60 percent today, and the average SAT scores of incoming students have declined by an average of 20 points over the past four years. These students have seen some of the largest gains in recent years; today, African-American, Hispanic, and Pell students graduate at higher rates than the GSU average. This combination of statistics suggests that GSU's initiatives—rather than better-prepared entering students—have been the source of improved student outcomes.

GSU's initiatives have immense reach across the student population. Advisers, informed by the GPS system, have at least one in-person meeting with 70 percent of undergraduates, and personally contact every student each semester. Over the last academic year, the GPS system promoted more than 43,000 one-on-one meetings between advisors and students. The MILE course redesign is in place for every section of three introductory math courses for non-STEM majors, which enrolled more than 7,500 students during the 2012-13 academic year. More than 95 percent of all freshmen at GSU participate in the Freshman Learning Communities, despite an opt-out policy. The Supplemental Instruction program assisted 9,700 students in the 2013-14 academic year. To date, more than 4,200 Panther Retention Grants have been disbursed. Finally, 377 students have participated in the Keep HOPE Alive scholarship program since its inception in 2009.

GSU has also been able to track larger groups of students over longer periods of time for its earlier interventions; analysis of these data provides some direct evidence of their impact. Students who participate in the Freshman Learning Communities, for example, have an average first-year GPA of 2.96 and are retained at a rate of 85 percent, compared to an average GPA of 2.73 and retention rate of 81 percent for students who did not participate. There is also evidence that the FLCs' block scheduling has improved attendance and that participation in the program makes it less likely that students will switch majors after their freshman year. Similarly, students who attend at least three Supplemental Instruction sessions earn an average GPA of 2.91 in the relevant course and have a one-year retention rate of 91 percent, compared to an average GPA of 2.41 and retention rate of 84 percent among students who did not attend a session. Furthermore, the MILE redesign has cut the DFW rate in its three courses by more than half, from 43 percent before the change to 19 percent in Fall 2014.

The newer initiatives have shown similarly positive effects. Students who lost their HOPE scholarship and receive a Keep HOPE Alive grant regain the HOPE at a rate of more than 58 percent, compared to less than 9 percent for students who did not participate in the program. As a consequence, the graduation rate of students who lost the HOPE scholarship at some point in their college careers has nearly doubled from 21 percent in 2008 to 41 percent in 2013. With the introduction of the Summer Success Academy, the retention rate for at-risk freshmen has improved from 50 percent in 2011

to 87 percent today—higher than the average for all freshmen. Sixty-one percent of seniors who received Panther Retention Grants graduated within two semesters of receiving the grant. Finally, the introduction of the GPS advising system coincided with increases in first-term retention and progression rates. The 2013-14 academic year also saw the first significant drop in nearly six years in the number of credit hours taken by graduates, equating to approximately \$4 million in tuition and fee savings.

In addition to their impact on student outcomes, many of these initiatives have reduced administrative burdens and increased revenues.

In addition to their impact on student outcomes, many of these initiatives have reduced administrative burdens and increased revenues. For example, as part of an analytical approach to make its own administrative functions more effective and functional, GSU introduced the customer relationship management platform Parature to streamline enrollment services (through a personalized dashboard and self-service knowledgebase). As a result, the registrar's office at GSU saw a reduction in the number of student registration meetings from 50,000 in the previous year to 13,000 this year. In addition, GSU has estimated that the costs associated with GPS and hiring new advisors (about \$1.6 million for salaries and \$150,000 for the data analytics software) have been more than offset by the \$9-10 million in increased revenues derived from the corresponding increase in retention rates. Similarly, the Panther Retention Grants have increased revenues by allowing the university to retain the tuition and fees of students who would otherwise have been dropped and paid nothing.

Success Factors

Each of GSU's initiatives has depended on a number of key inputs, leaders, decisions, and partnerships. Looking beyond the factors responsible for any one initiative, several overarching characteristics emerge that help explain the success of GSU's decade-long effort to improve student progress and graduation.

A Systematic Problem-Solving Approach

As mentioned above, perhaps the most important factor in GSU's success has been its approach to problem-solving. GSU's administration has employed careful analysis of its students' academic pathways to identify barriers to their success, devised and piloted

interventions to address those barriers, and scaled up the interventions that demonstrate evidence of effectiveness. The currency of this strategy is the seemingly small win; no barrier is too small to address, and priority is determined by tractability as much as by scope or prominence. By accumulating many of these small wins—a few hundred students helped here, a few hundred there—the aggregate impact swells. The interventions are designed not to prove a theory, but to attack a barrier. While ambitious, they are contextualized and targeted solutions to specific, rather than generalized, problems. This is an important point for the many peer institutions seeking to learn from GSU’s experience: the particular details of the initiatives are tailored to GSU’s needs. Other institutions should be encouraged to not necessarily replicate these initiatives, but rather to emulate the process by which GSU determined what initiatives it should undertake.

A Comprehensive Data Warehouse

The efficacy of a data-driven approach to student success depends critically on the quality of the data used to drive decisions. The GSU administrators who launched the student success initiatives in the early 2000s were fortunate to inherit comprehensive transactional student data from their predecessors. But having the existence of such data was not sufficient; GSU’s Office of Institutional Research undertook a laborious effort to compile data from multiple, siloed transactional systems into a comprehensive and well-organized data warehouse, suitable for analysis and reporting. Once built, this warehouse required maintenance not only by the Institutional Research team but also by those responsible for the transactional data. The full reliance of the president and provost on the warehouse data in evaluating and making decisions about schools, colleges, and majors (including budgetary decisions) reinforced the importance of the data maintenance process. Without this early effort to build the necessary data infrastructure, many of the initiatives and the problem-solving process itself would not have been feasible.

A Cross-Functional Organizational Structure

The problem-solving approach using high-quality data revealed the interconnectedness of academic policy, financial aid, billing, and student choices (among other factors) in setting up barriers to student success. The decision to pull together the typically isolated functions of registrar, advising, admissions, financial aid, and student accounts into a single unit provided the organizational wherewithal to address those tangled issues. This organizational structure was not serendipitous, but was instead a product of the problem-solving process itself. When analysis of student pathways revealed multi-faceted financial and academic problems that blocked student advancement (such as the loss of HOPE scholarships), and further investigation revealed that the units responsible

for different aspects of the problem could not be coordinated to solve the problem, this lack of coordination became the barrier that needed to be addressed. In turn, the new structure—which includes weekly meetings of the managers of the various functions—helps to surface additional problems and provides a more capable vehicle for addressing them.

A Commitment to the Success of Underserved Students

GSU's administration and faculty possess a shared, bedrock value of helping students who have traditionally been underserved by research universities to succeed. This commitment is evident from the president—whose personal donation launched the Keep HOPE Alive grants—to the faculty and staff, who have shown an unusual willingness to make significant changes to their programs and instruction to support their students. This is a conscious choice, not a default condition. GSU's rising graduation rate and increasing national prominence have generated more applications from better-prepared applicants. But, rather than taking advantage of the expanded applicant pool to improve the credentials of its incoming class and raise its ranking in US News and World Report, GSU has enrolled *more* students from traditionally underserved backgrounds—in particular those who are Pell Grant eligible—and has deprioritized SAT scores in its admissions process. At the same time, GSU has not turned a blind eye to academic preparation; it has simply prioritized measures like high school GPA that are consistent with its commitment to serving students who show promise in challenging circumstances. GSU is also on the brink of a consolidation with Georgia Perimeter College (GPC), a multi-campus community college in and around Atlanta. Doing so would increase its undergraduate population by two-thirds, with almost all of the additional students coming from underserved backgrounds and facing significant academic challenges.¹⁷ Beyond a sense of mission, the efficacy of the problem-solving approach over the past decade has given GSU's administration and faculty confidence in their ability to help these students; we were frankly (and pleasantly) surprised by the relish with which our interviewees view the GPC consolidation.

Dedicated Support from University Leadership

An important background condition buttressing all of these success factors is the commitment of university leaders to the student success initiatives. President Becker and his predecessor, Carl Patton, as well as their provosts, Risa Palm and Ron Henry, have advocated for the initiatives and provided resources to scale them up. Perhaps most importantly, they have provided the student success team with leeway in following the

¹⁷ For more information on GSU's consolidation with GPC: <http://consolidation.gsu.edu/>.

data to identify problems, and they have supported the pursuit of disruptive solutions. The GSU leadership has shown great patience for this systematic problem-solving effort, which, by its very nature, accumulates success piecemeal over time. They have supported the work even when it yields consequences that would make many university leaders pause. For example, the creation of the Summer Success Academy in 2012 meant that GSU's average SAT score for entering students would see a downward shift, causing its *US News & World Report* ranking to fall. Convinced by the student success team that the program would ultimately lead more students to graduate, President Becker was willing to back the program and take the inevitable hit in rankings.

An important background condition buttressing all of these success factors is the commitment of university leaders to the student success initiatives.

Remaining Challenges

GSU's data-driven, structured approach provides a powerful tool for identifying ways to continuously improve student outcomes. Nevertheless, GSU faces a number of risks and challenges, both internal and external, that may slow the pace of improvement or make its strategy more difficult to implement.

One looming task is the consolidation with Georgia Perimeter College. GPC is a 21,000-student institution that offers a variety of associate's degree programs.¹⁸ Only 6 percent of GPC's students earn associate's degrees within three years. Beginning in the fall of 2015, GPC's students will become GSU students, and GSU will begin issuing associate's degrees. GSU's administrators are (surprisingly) sanguine about the consolidation. They view it as an opportunity to diversify the opportunities they offer to students, and are excited to apply their problem-solving approach to GPC's students and their particular barriers to success. Already, 1,500 GPC students annually transfer to GSU;¹⁹ the consolidation will allow GSU's student success team to support those students—and many others who otherwise would not transfer—earlier in their academic careers in order to better prepare them for pursuit of a bachelor's degree. Still, the consolidation is

¹⁸ See "GPC Fact Sheet": https://www.gpc.edu/News_and_Information/fact.php3.

¹⁹ See "The Georgia State-Georgia Perimeter Consolidation: Q&A with President Mark P. Becker": <http://www.gsu.edu/2015/01/06/consolidation-qa-president/>.

a significant logistical challenge: dozens of joint committees have formed to manage the reconciliation of systems and policies, and the two administrations do not always see eye-to-eye. In light of GSU's data-driven approach, the cleansing, integration, and maintenance of GPC's student data will be a particularly important consolidation task.

Another challenge, revealed by the growing sophistication of GSU's student success strategies, is the mismatch between the identified academic and support needs of students and the resources, facilities, and flexibility GSU has to meet them. One such mismatch noted above is between the courses the advising system indicates students require and the ability of GSU to offer those courses at the scale and at convenient times for students. This is not simply an issue of faculty or space availability; equally important is the long lead time for course planning and the inability to anticipate needs far enough in advance. Consistent with its problem-solving approach, GSU is building facilities and exploring different predictive models to better plan course offerings. As one of our interview subjects put it, however, the more precise understanding of student needs raises expectations and creates a deeply felt "moral dilemma" when the university cannot meet those expectations.

The more precise understanding of student needs raises expectations and creates a deeply felt "moral dilemma" when the university cannot meet those expectations.

One factor limiting GSU's flexibility to respond to student need is inertia among faculty. Importantly, faculty resistance to change is not as significant at GSU as at other institutions, given that its initiatives have all been endorsed by the university senate. Many faculty support the student success initiatives and have shown an impressive willingness to adapt with respect to initiatives like the revision of the nursing program and the MILE math courses. One of our interviewees attributes this to the fact that, at GSU, unlike at other institutions, tradition is not viewed favorably; the "way things have always been done" is demonstrably worse for students than the more recent strategies. Still, faculty at GSU, like faculty everywhere, value their autonomy, and at the very least require a compelling argument to change how they do their work. In some cases, they will not want to make changes designed by someone else on principle.

There is a feeling among the members of the student success team that a lot of the low-hanging fruit has been picked, and there is a need to move on to larger and more fundamental challenges.

The risk of faculty resistance will become more acute over time, as GSU's student success initiatives circle closer to the core of curriculum and instruction. To this point, most of the academic initiatives—with the exception of MILE and some of the efforts to revise major requirements—have been supplements or supports at the margins of instruction. There is a feeling among the members of the student success team that a lot of the low-hanging fruit has been picked, and there is a need to move on to larger and more fundamental challenges. Applying the problem-solving approach to general education requirements, course sequences, instructional design, and pedagogy will be more analytically complex and politically difficult.

All of the above challenges are internal to GSU, but continued improvement also faces counterforces external to the institution. There is evidence that Georgia's college-going population is becoming less-resourced and less-prepared.²⁰ At the same time, federal and state financial aid and state support have become less generous.²¹ While these shifts affect many institutions, GSU—with its commitment to serving a larger share of traditionally underserved students—feels them more intensely than many peer research universities. These external changes raise the degree of difficulty for GSU's student success work. They also make the work that much more crucial.

²⁰ See The Governor's Office of Student Achievement, "Only 1 in 3 Georgia High School Graduates Who Took the SAT Prepared for College Courses; AP Participation and Scores Improve." Press Release, September 26, 2013. <https://gosa.georgia.gov/press-releases/2014-02-20/only-1-3-georgia-high-school-graduates-who-took-sat-prepared-college>.

²¹ See Suggs, Claire. "Overview of Georgia's Fiscal 2014 Budget for Higher Ed." Georgia Budget & Policy Institute (2013). http://gbpi.org/wp-content/uploads/2013/02/fy2014_Budget-Analysis_Ed_higher-ed_2.pdf.

Conclusion

Over the past decade, something truly remarkable has been underway at Georgia State University. The institution has dedicated itself to the success of students who face long odds of succeeding in higher education, and has made dramatic gains with those students. The improvement in outcomes has attracted attention from other institutions, funders, and the White House. Various commentators have identified various silver bullets. But there is no silver bullet.

GSU has achieved its stunning aggregate results through the patient work of systematically accumulating smaller victories.

Rather, GSU has achieved its stunning aggregate results through the patient work of systematically accumulating smaller victories. It has closely analyzed the obstacles that stand in the way of student success, and has chipped away at those obstacles by testing and scaling innovative, but focused, solutions. Through this process, it has steadily increased the probability that its students move forward and graduate. A number of the particular solutions—such as the Freshmen Learning Communities or the centralized advising system premised on GPS—may be replicable at other institutions. But it is important for other colleges and universities seeking to learn from GSU to bear in mind that these solutions are products of the problem-solving process. To achieve similar results over the long term, it is the process, and not merely its outputs, that other institutions should seek to replicate.

Appendix

We conducted interviews with the following GSU administrators and faculty on March 12 and 13, 2015:

- Brad Blitz, Assistant Director, University Advisement Center
- Ben Brandon, Research Associate, Office of Institutional Research
- Allison Calhoun-Brown, Assistant Vice President for Student Retention
- Carol Cohen, Director, University Advisement Center
- Charmaine Daniels, Director of Student Accounts
- Charles Gilbreath, Director, Office of Institutional Research
- Erik Lauffer, Assistant Director, Office of Institutional Research
- Peter Lyons, Associate Provost for Institutional Effectiveness
- John Medlock, Assistant Dean for Academic Services, College of Arts and Sciences
- Darrick Owens, Associate Registrar
- Shari Piotrowski, University Registrar
- Tim Renick, Vice President for Enrollment Management and Student Success and Vice Provost
- Louis Scott, Director, Financial Aid Office
- Mary Beth Walker, Dean, Andrew Young School of Policy Studies
- Shelly-Ann Williams, Director of the Office of Academic Assistance, Andrew Young School of Policy Studies